IBSA Manufacturing
IRC Achievements for 2018

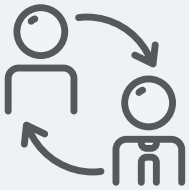
IBSA MANUFACTURING

28

Industry sectors supported

6

Industry Reference Committees supported



17

Projects / consults
(6 complete, 11 in progress)

10

Training Packages
(9 from June 2018)

5

Cases for Change submitted

6

Cases for Endorsement submitted

Industry Reference Committee meetings held

25

Technical Advisory Committee meetings held

30

IBSA MANUFACTURING

86

Number of TAC members across 9 committees

7,500

Industry 4.0 conference social media reach

Introduction from the CEO

IBSA's work in supporting the manufacturing Industry Reference Committees (IRCs) has delivered a significant number of achievements to improve industry and employees' access to skills during 2018. This work has included developing Industry Skills Forecasts, updating Training Packages and undertaking other industry engagement activities.

This publication summarises the main achievements made in 2018 by the manufacturing IRCs and IBSA Manufacturing.

Our strategy is to work with our IRCs to provide them with the best possible support and also engage closely with State and Territory Training Authorities and other government bodies. We carry out additional activities with broader industry stakeholders to help us learn more about their environment and inform them of the work underway.

The manufacturing industry continues to evolve rapidly as companies face the opportunities and challenges of Industry 4.0. Last July, IBSA Manufacturing hosted the *Industry 4.0 – Unpacking the Skills Challenges* conference with keynote speaker, Dr Mariagrazia Squicciarini, from the Organisation for Economic Co-operation and Development. The conference was attended by over 100 delegates from manufacturing and related sectors, Federal and State government representatives, leading education providers and industry leaders.

We finalised six Cases for Endorsement, which were approved by the Australian Industry and Skills Committee (AISC) in 2018 and progressed 11 other training development projects on behalf of our IRCs. At least half of these projects will be submitted for endorsement early in 2019, together with a number of new Cases for Change relating to key industry projects.

In addition, the 2018 Industry Skills Forecasts for each of our IRCs were submitted in May, following broad industry consultation and research.

This work all leads to updated Training Packages, which are vital to support more 'job ready' graduates and skills for industry. We are fully aware that the outcomes of our work have a significant impact on people's livelihoods and careers.

We have built, and will continue to develop, our capabilities to ensure the quality of our work has a positive impact on the IRCs we support, industries we work in and our broader group of stakeholders.

Sharon Robertson
CEO, IBSA

IBSA MANUFACTURING

Aerospace Industry Reference Committee

2018 Committee members

Russell Burgess,
Qantas Airways – CHAIR

Michael Evans,
Boeing – DEPUTY CHAIR

Paul Baxter,
Australian Manufacturing Workers' Union

Warren Bossie,
Hawker Pacific

Mary Brown,
NQ Aviation Services

Ken Cannane,
Aviation Maintenance Repair Overhaul Business Association

Lynda Douglas,
Department of Defence

Mark Fagan,
Australian Workers' Union

Douglas Hendry,
Chartair

Mike Higgins,
Regional Aviation Association of Australia

Michael McGill,
Civil Aviation Safety Authority

Matt Murphy,
Communications, Electrical and Plumbing Union

Stephen Re,
Australian Licensed Aircraft Engineers Association

Steven Wright,
SM TAFE Progressive Aviation Solutions

Cases for Endorsement

Release 2 of the MEA Aeroskills Training Package was endorsed in August 2018. The release was the result of the **Aeroskills 2017 Project** undertaken to respond to regulatory compliance, industry trends and workforce needs in the aerospace industry. The Aerospace IRC took the opportunity to implement a range of changes to the MEA Aeroskills Training Package as part of this review. These changes were undertaken so that training package components better align to the regulatory standards and reduce repetition, making units easier to read. The number of prerequisites were redeveloped to allow individuals to move easily between related occupations. The project revised nine equivalent qualifications and developed one new unit of competency.

Meeting ministerial training product reform priorities

This work better supports individuals to move easily between related occupations by reducing the number of units and facilitating a CASA B1 Licence pathway.

Projects/consultations in progress

The **Aircraft Maintenance Subcategory B1 Licences Project** is reviewing and redeveloping units associated with the Diploma of Aeroskills (Mechanical). Updates to training package components will be based on industry requirements as well as to comply with all industrial instruments for participants seeking CASA Licence sub-categories B1.2 and B1.4.

As part of the work, packaging rules will be updated and additional elective banks added to allow for the qualification to facilitate a pathway for participants seeking CASA Licence sub-categories B1.2 and B1.4 relating to piston engines.

Extensive industry consultations have taken place throughout 2018 and it is anticipated that this project will be completed in early 2019.

Industry Skills Forecast priorities

The 2018 Aerospace Industry Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 was developed by the Aerospace IRC with support from IBSA Manufacturing. This forecast details the priorities for, and rationale to undertake, training package development work in the industry over the next four years.

The skills outlook identified the need for skills to maintain both ageing aircraft using traditional technologies and state-of-the-art aircraft using highly sophisticated and constantly evolving technologies.

The item identified as a critical priority for 2018–19 was to evaluate the alignment of VET qualification standards to CASA licensing regulations. A Case for Change for this priority was included as part of the 2018 Industry Skills Forecast.

Cases for Change

In its 2018 Proposed Schedule of Work, the Aerospace IRC recommended urgent training package development work to **align VET qualification standards to CASA licensing regulations**.

The lack of harmonisation with the International Aviation Safety Assessment (IASA) standards is costing the industry money and limiting career opportunities. The main difficulty is in trying to match the theoretical regulatory outcomes of Civil Aviation Safety Authority (CASA)/European Aviation Safety Agency (EASA) to the current vocational education competency-based model.

This project will investigate and develop a framework for qualifications for Licensed Aircraft Maintenance Engineers that accommodates the CASA/EASA regulations and VET standards.

Industry engagement highlights

- Presentation at the Rotortech conference – Sunshine Coast
- Site visit to regional airline, Chartair (see case study) – Darwin
- Consultation and engagement programs – Perth, Darwin
- Aviation Australia meeting regarding VET harmonisation – Brisbane
- Department of Defence meeting – Wagga Wagga.

Case study: Chartair
Running a successful regional aviation enterprise

Chartair operates a successful regional business across the top end of Australia. Despite challenging industry conditions, it has grown its operations over a number of years and remained profitable. A key component of its strategy is the recruitment and retention of skilled employees, including apprenticeship programs that draw on local indigenous talent.

Regional business challenges

Over the past five years, the general aviation sector has seen the largest exodus of businesses in the entire history of general aviation, according to Aviation Advertiser Australia, Chief Executive, Benjamin Morgan*, with regional industries hardest hit. Smaller operators are the traditional skills base for piloting, training and maintenance across the whole industry, including providing skilled employees to the bigger airlines.

Proving successful in this environment, Chartair, founded by the Leach family in 1974, is Australia's leading charter and scheduled services operator serving central Australia, the top end and far north Queensland. It operates 42 aircraft and employs 73 people, with maintenance sites in Darwin and Alice Springs and bases in Katherine and Hooker Creek Airport at Lajamanu. The main stay of the business is government contracts, in particular, essential regional mail deliveries with a variety of other services from Fly In, Fly Out to aircraft recovery. They fly to many remote places and work to Regular Public Transport standard levels, the same as those required by larger airlines such as Rex or QantasLink.

Being an airline based in, and flying to, remote and rural areas, it is hard to find and keep key qualified people. The business' number one challenge is the recruitment and retention of pilots and technical staff to maintain aircraft and facilities.

Chartair also has to deal with a number of climatic challenges due to different weather conditions across its operating regions. Alice Springs has a dry climate that causes little or no deterioration to aircraft but does have cold night time temperatures in winter. Conversely, the Darwin climate presents humidity challenges, especially in the wet season, which can significantly affect avionics in particular. All planes are securely covered when not in use.

Meeting the challenge

In 2015, the family business was taken over by new owners, a group of Sydney investors well versed in the aviation sector. The strategy was to focus on expanding the business. The former CEO, Douglas Hendry, joined the business with the take over and has overseen a number of business improvements.

Chartair has since secured several new contracts, which have provided growth opportunities, including its first operational base outside of the Northern Territory in Cairns. Obtaining the 'Mail Plane' contract for the Cairns region has also brought about further opportunities for Chartair to develop and grow charter business and to tender for future Queensland Government contracts.

While the organisation has been experiencing growth, the critical workforce development challenge remains the recruitment and retention of staff. While Chartair offers a wide range of benefits and incentives to employees to bring them to regional locations, it is not enough to solve this ongoing issue.

* http://www.abc.net.au/news/2016-04-14/aviation-industry-on-brink-of-collapse/7326348

To tackle this challenge, a series of measures have been introduced, including a deliberate strategy around local apprentice recruitment, with a particular focus on employing people from indigenous backgrounds. To solve some of the immediate challenges, the company offers Fly In Fly Out opportunities for suitably qualified engineers around the country.

As Mr Hendry explained, "We see indigenous apprentices as crucial for the long-term viability of the business. They are our future engineers and we think it is great to be able to offer opportunities to people from the remote communities we serve."

The business has partnered with Group Training Northern Territory, the NT's largest employer of apprentices and trainees, in Alice Springs to offer a Certificate II in Aeroskills program that was set up by Aviation Australia in Cairns.

Business success

Chartair has been able to deliver a profit in the challenging regional aviation sector. It is in a position to keep seeking new growth opportunities to add value to its client base.

From an employee development perspective, Chartair has two indigenous apprentices in Darwin and is looking for another in Alice Springs. It is hoped the Certificate II program will bring future talent to the business and provide increased opportunities to the community as a whole.

Furnishing Industry Reference Committee

2018 Committee members

Patrizia Torelli,
Australasian Furniture Association – CHAIR

Alex Milne,
Illaring – DEPUTY CHAIR

Dean Brakell,
Australian Cabinet and Furniture Association

Lisa Chapman,
Designer Properties Australia

Randy Flierman,
Australian Timber Flooring Association

Bronwyn Foord,
Window and Door Industry Council / Fewings Joinery

Patrick Gavaghan,
Australian Glass and Glazing Association

Kay Gerard,
Food, Fibre & Timber Industries Training Council

Mark Heydon,
Picture Framers Guild of Australia

Andrew Lewis,
Newfurn Floorcoverings Ltd (Choices)

Keith Phasey,
N.T. Blinds

Ronald Redman,
Redman Training and Development

Cases for Endorsement

Release 4 of the MSF Furnishing Training Package was endorsed in December 2018. This release was developed from the **Furnishing 2017 Project** that resulted in nine revised qualifications being submitted for endorsement, one qualification being deleted, 168 units revised and eight new ones developed. One skill set was also updated. The primary focus has been to reflect current industry needs by updating and developing new content in the following sectors:

- Flooring technology
- Glass and glazing
- Interior decoration and design
- Picture framing.

Meeting ministerial training product reform priorities

The priorities to remove duplicated and obsolete content has been demonstrated by the deletion of one unused qualification, with 34 units merged into 16. This has resulted in 28 fewer units of competency.

Movement between occupations has been facilitated through common core units to provide access to a broader range of workplaces and specialisations.

Two new compliance and embedded technologies units were developed for broad application. New units in glass and glazing assembly, fabrication and installation can now also be used in diverse industry contexts because they focus on generic skills. These units can be selected in flexible combinations to meet different job outcomes.

Projects/consultations in progress

The Furnishing IRC identified that the Certificate III in Blinds, Awnings, Security Screens and Grilles needed to be redeveloped to meet the needs of the sector. The resulting **Blinds, Awnings, Security Screens and Grilles Project** will develop new units to address technology advances in the sector. The project will also review and redevelop units, associated with the qualification, to ensure they reflect job role requirements based on industry need.

The Case for Endorsement is expected to be submitted in 2019.

The **Furniture Design and Technology Project** will examine contemporary and emerging work practices and review and redevelop training products within the MSF Furnishing Training Package to meet current and future skill needs for this sector.

The review will ensure a reduction in duplication and repetition across the Training Package, improve clarity in performance standards in the workplace and strengthen assessment requirements to meet industry needs. This project involves the redevelopment of the two qualifications and 61 existing units.

It is anticipated that this project will be completed by late 2019.

Industry Skills Forecast priorities

The 2018 Furnishing Industry Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 were developed by the Furnishing IRC with support from IBSA Manufacturing. The item identified as critical, with a resultant Case for Change approved, was Furniture Design and Technology (See projects/consultations section).

The forecast details the priorities for, and rationale to undertake, training package development work in the industry over the next four years. The current and emerging skills needs identified in the sector include working with new technologies, soft science, technology, engineering and mathematics and business administration skills.

The items proposed for inclusion as a priority for the 2018–19 schedule of work are:

- Cabinet Making (See Cases for Change)
- Redevelopment of furnishing entry–level and pathways qualifications (See Cases for Change)
- Digital skills, new technologies and materials and mobile technologies
- Redevelopment of Diploma of Stained Glass and Leadlighting
- Ergonomics and inclusive design/small house design.

Cases for Change

The **Furniture Design and Technology Case for Change** submitted as part of the Industry Skills Forecast is now approved and the associated project has commenced (see projects/ consultations section).

The **Pathways, Cabinet Making and Related Qualifications Case for Change** proposes reviewing and redeveloping the furnishing entry-level and pathways qualifications and cabinet making and related qualifications to ensure they reflect current and emerging skill needs and support pathways for learners as well as individuals moving from one occupation to another. This is expected to be submitted to the AISC in 2019.

Industry engagement highlights

April saw IBSA Manufacturing attend the launch of the of the West Australian Government initiative to return key furnishing and textiles trades to WA. The design of kitchens, bathrooms and interior spaces, glass and glazing and furnishing were also the subject of consultations in Perth with the Food, Fibre & Timber Industries Training Council.

Redevelopment of the glass and glazing qualifications and the need to review cabinet making and related qualifications were discussed as part of a key meeting with representatives of the Queensland State Training Authority in April.

In August, the Furnishing IRC ran a forum, facilitated by IBSA Manufacturing, alongside the Australian Woodworking Industry Suppliers Association exhibition in Sydney. This enabled the IRC to present an information session to industry and RTO attendees on the role of the IRC, how new skills are identified and how industry can get involved.

As part of the Blinds, Awnings, Security Screens and Grilles project, extensive engagements were held, including face-to-face events during August and September in Brisbane, Darwin, Newcastle and Perth.

IBSA Manufacturing gave a presentation to the Fashionline Group of Blind Industry Professionals in October and attended an Industry 4.0 forum hosted by QMI Solutions in Brisbane in November, 2018.

Case study: G. James Glass & Aluminium
Evolving with technology

G.James Glass & Aluminium, one of Australia's leading firms in the glass, aluminium and windows and doors industry, has a strong commitment to workforce development. They are continually looking at ways to embrace automation, increase efficiency and ease the physical demands on employees to remain competitive in a tough industrial environment. G.James is committed to engaging with the national training system to ensure its workforce development activities remain relevant and future focused.

Business and its environment

G.James is one of Australia's leading manufacturers and installers of aluminium windows and doors and façade systems. They supply to the residential, commercial and high-rise building and construction markets. It is a private family owned group of companies that has been operating since 1917 and employs 2,300 people.

The glass processing arm of G.James produces a varied range of glass products including safety and security, energy efficient, insulated glass units, and decorative glass. Their glass processing facilities are located at Eagle Farm and Narangba in Queensland, Melbourne and Sydney.

The glazing side of the business fabricates, delivers and installs doors and windows for commercial and residential use. To support glazing operations, G.James has 26 regional branches across Queensland, New South Wales as well as in Sydney, Melbourne, Adelaide, Darwin, Perth and Canberra.

The global supply chain is constantly challenging G.James to achieve cost efficiencies in order to remain competitive.

Meeting the challenge

Over the last decade, G.James has been looking at ways to automate their facilities, not only to achieve efficiencies, but to also reduce the physical demands on employees. For example, the main processing centre in Eagle Farm has automated machinery that locates and picks glass from the storage area then delivers it directly to the cutting and processing machines.

These developments have altered the skills required by a large portion of the on-site G.James workforce, with trades skills broadening to include machine operator-based trade skills.

The business has its own Registered Training Organisation (RTO) focused on glazing and glass processing and manufacturing along with some safety related qualifications. For more than 15 years, the business has continually trained apprentices internally, primarily using the MSF30413 – Certificate III in Glass and Glazing qualification. In addition to ensuring its employees have the right skills, this helps meet the increasing customer demand for proof of formal qualifications and accreditation from contractors.

For skills wider than processing and production, they have internal, non-accredited training programs for work tasks and leadership development as well as using external RTOs to train other apprentices in roles such as engineering and electrical.

The importance of training its workforce is reinforced by G.James Director, Rachel Driessen, who said, "G.James has a strong focus on investing in its people and ensuring they have the right skills for the work they need to do. People are always going to be vital to the effective running of our business, regardless of increases in automation."

She added, "We are heavily involved in industry groups to help ensure our employees receive the most relevant, up to date training. We have a core objective to engage with peers and work with industry representatives and with IBSA Manufacturing, our Skills Service Organisation, to help shape training package development."

Another key driver of change across the business is the growth of compliance requirements, particularly in regard to safety. The business is also looking to increase the consistency of its systems across its diverse business activities to gain efficiencies and assist with corporate governance. The organisation is developing IT systems including a new enterprise resource planning system to meet these needs.

Staying successful

Operating in today's global environment is a challenge, and G.James' strong values and commitment to reinvesting in the business has helped maintain its position as one of the leading Australian firms in the sector. They are proud of the long tenure of many of their employees and see training and development of their workforce as central to future success.

Manufacturing and Engineering Industry Reference Committee

2018 Committee members

Ian Curry,
Australian Manufacturing Workers' Union – CHAIR

David Tiller,
Australian Industry Group – DEPUTY CHAIR

Paul Baxter,
Australian Manufacturing Workers' Union

Adrian Boden,
South East Melbourne Manufacturers Alliance

Luke Brown,
Department of Defence

Mark Burgess,
Communications, Electrical and Plumbing Union

Doug De Cean,
Australian Industry Group

Michael Grogan,
Advanced Manufacturing Growth Centre

Daniel Murray,
Australian Industry Group

Shane Roulstone,
Australian Workers' Union

Doug Searle,
B&R Enclosures

Kristian Stratton,
Australian Industry Group

Projects/consultations in progress

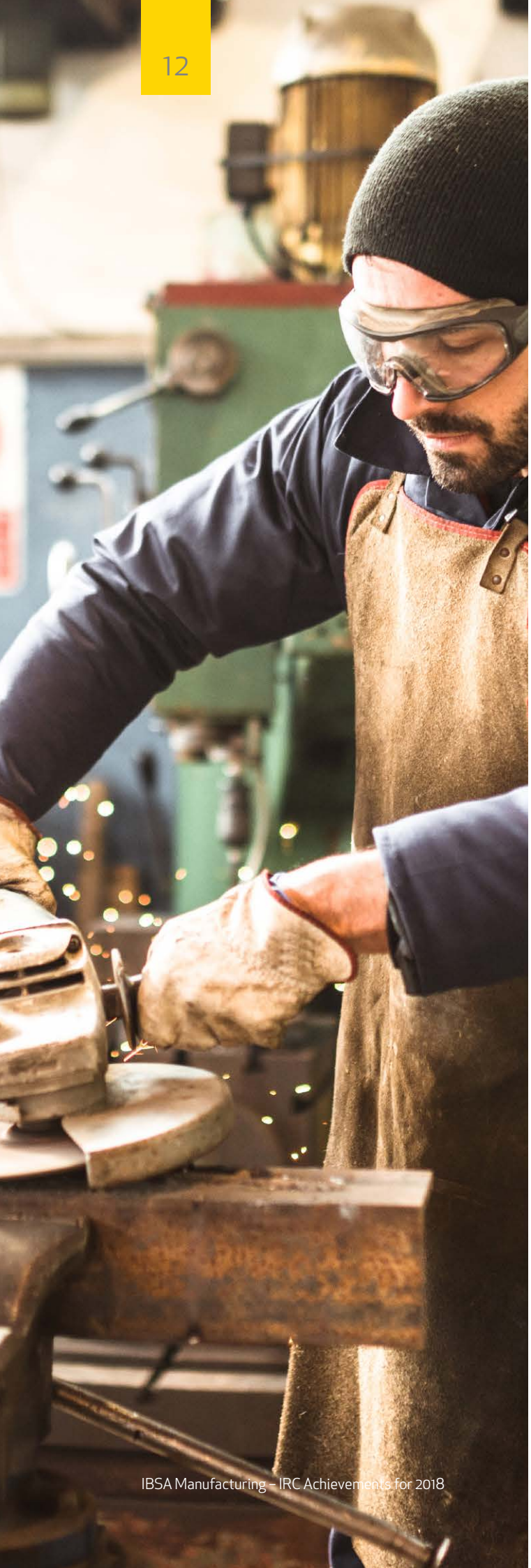
The Manufacturing and Engineering IRC continued their work on the **Manufacturing and Engineering 2017–18 Project**, which involves the transition of all remaining metal and engineering and other training package components to meet the Standards for Training Packages.

The Case for Endorsement for Release 2 has been submitted and a decision is expected in early 2019.

Industry Skills Forecast priorities

The Manufacturing and Engineering Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 was developed by the Manufacturing and Engineering IRC with support from IBSA Manufacturing. The forecast details the priorities for, and rationale to undertake, training package development work in the industry over the next four years.

The items identified as a critical priority for 2018–19 were the redevelopment of qualifications related to Welding and Technician job roles and the development of new training components to meet skills needs for trainers and supervisors in the workplace. A Case for Change for these priorities was included as of part the 2018 Skills Forecast (see Cases for Change section).



Cases for Change

There are two main drivers of industry growth and change underpinning the proposal for a project looking at **Welding, Technician Skills and Trainer–Supervisor Skills**. These are key Government initiatives, such as new Australian Defence Force projects, and technology trends around automation, digitisation and the use of advanced materials.

This project covers the three key skill areas and aims to ensure qualifications are structured correctly, emerging skills needs incorporated and training components developed for higher level job roles. The Case for Change has been approved and work is expected to commence in 2019.

Industry engagement highlights

- Presentation on MEM Manufacturing and Engineering Training Package progress to the Utilities, Engineering, Electrical and Automotive Training Council Engineering Group – Perth
- Presentation at the Gateway to Industry Schools Program for manufacturing and engineering, quarterly meeting – Brisbane
- Attendance at the Australian Manufacturing Workers, Union Apprenticeship Roundtable – Sydney
- Face-to-face workshop with Locksmithing Industry Advisory Group, South Metropolitan TAFE – Perth
- A roundtable with the Locksmith's Guild of Australia and the Master Locksmiths Association of Australasia Conference – Gold Coast
- Forum with North Metropolitan TAFE Jewellery teachers and the Jewellery Association of Australia – Perth.

Case study: B&R Enclosures
Embracing Industry 4.0 pays dividends

B&R Enclosures, founded in 1955, started on an "Industry 4.0" journey approximately three years ago. The term, Industry 4.0, is used to describe advanced manufacturing within the Australian manufacturing industry and refers to current trends of improved automation, machine-to-machine communication, the Internet of Things and continued technological improvements and digitisation.

Continual upgrades and advances in factory technology have helped B&R to create new business opportunities and continue to meet changing customer needs. B&R Enclosures has several international partnerships whilst continuing to develop manufacturing facilities overseas. This has been possible whilst still remaining a 100% Australian family-owned and operated manufacturing company.

As the B&R business continues to evolve, so does the training needs of its staff throughout the business divisions. This means that the role of the family executive management team is to ensure business strategy and workforce development is aligned to meet these present and future goals.

Situation

B&R products and systems are found throughout Australia, from remote mine sites and data centres to hospitals and residential homes and includes electrical enclosures, cabinet solutions, switchboard building systems, racks and cabinets.

B&R employs over 300 staff with its head office based in Heathwood, southwest of the Brisbane CBD. The facility utilises state-of-the-art equipment which allows B&R to build to order as well as manufacture a range of standard products. To compliment head office facilities, B&R also has manufacturing locations in Adelaide, Sydney, China, Malaysia and Saudi Arabia.

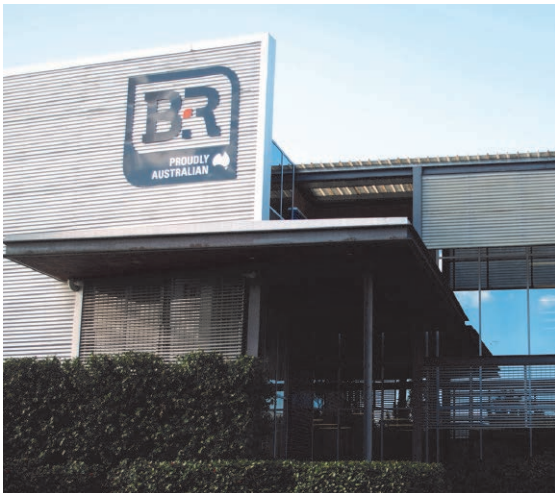
While B&R has a clear focus on maintaining manufacturing capabilities in Australia, the company also realised that there were a number of customers that needed to have access to the same quality of product internationally. This led to manufacturing facilities in China, Malaysia and Saudi Arabia, offering the same quality of products and services backed by the experience of the Australian founding company.

B&R's Solution

One of the biggest steps B&R has taken is to evolve and recognise the need to digitise the manufacturing processes and services offered by the business. This meant focusing on digital and automated systems while servicing traditional market segments. B&R has fully embraced its 'Industry 4.0' journey.

Workforce development is a crucial part of the Industry 4.0 journey taken by B&R. At the cornerstone of its business strategy, B&R will invest heavily in training employees to ensure the organisation has the skills needed to continue maximising future opportunities both nationally and internationally.

As professional development is aligned with the business strategy, family members working within the business continue to increase their knowledge on topics including leadership, manufacturing technologies, international business and the emerging digital landscape.



Training programs are continuously monitored and put in place across all levels of the business using a blend of internal and external training adapted to meet the specific needs of manufacturing staff.

Doug Searle, Plant Manager Adelaide, says B&R has employed apprentices (both adult and youth) for traditional trades and primarily undertake the Certificate III in Engineering - Fabrication Trade (Light Fabrication). Training is delivered through a long-term partnership with Adelaide Training and Employment Centre (ATEC), who adapt the Certificate III training style to suit B&R's needs.

The business values a strong manufacturing sector in Australia. Group General Manager at B&R, Chris Bridges-Taylor, was recently quoted in the B&R Advanced Manufacturing Growth Centre (AMGC) member profile, "It's a case of our collective skills in Australia need to grow for us to succeed in the longer term. I'm in a family business where there are many families whose livelihood depends on the jobs we provide. The manufacturing sector is important for the welfare of Australia, and we need to strive together to make it prosper."

B&R has become involved with an emerging market in the digitisation capabilities space, the Defence sector. In conjunction with the South Australian Government and other leading manufacturers, the Virtual Shipyard Program is an Australian-first digital training program developed for local companies that will ensure future growth of B&R's major Defence work. Through the Virtual Shipyard Training Program, B&R will develop digital capabilities used worldwide to test construction, manage the entire lifecycle of projects and link into supply chains.

> *" We are seeing – even today – us win business in new areas we had not anticipated because we are on the Industry 4.0 journey," explains General Manager at B&R, Chris Bridges-Taylor.*

As a 100% Australian, family-owned business, B&R will continue to champion the virtues of quality, service and value, providing our customers with products and solutions to deliver increased value.

Process Manufacturing, Recreational Vehicle and Laboratory Industry Reference Committee

2018 Committee members

Keith Monaghan,
Keith Monaghan Consulting – CHAIR

Nigel Haywood,
Resources Industry Training Council – DEPUTY CHAIR

Grahame Aston,
PPC Moulding Services

Ian Curry,
Australian Manufacturing Workers' Union

Ceridwen Jones,
Cement Concrete and Aggregates Australia

Stuart Lamont,
Caravan Industry Association of Australia

Han Michel,
E-three & Associates

Leah Simmons,
TAFE NSW (Skills Point)

Julie Warren,
National Union of Workers

This IRC covers five different training packages:

1. Chemical, Hydrocarbons and Refining (PMA)
2. Laboratory Operations (MSL)
3. Manufacturing, including Recreational Vehicles (MSM)
4. Manufactured Mineral Products (PMC) – incorporated into the MSM training package in October 2018
5. Plastics, Rubber and Cablemaking (PMB)

1. Chemicals, Hydrocarbons and Refining

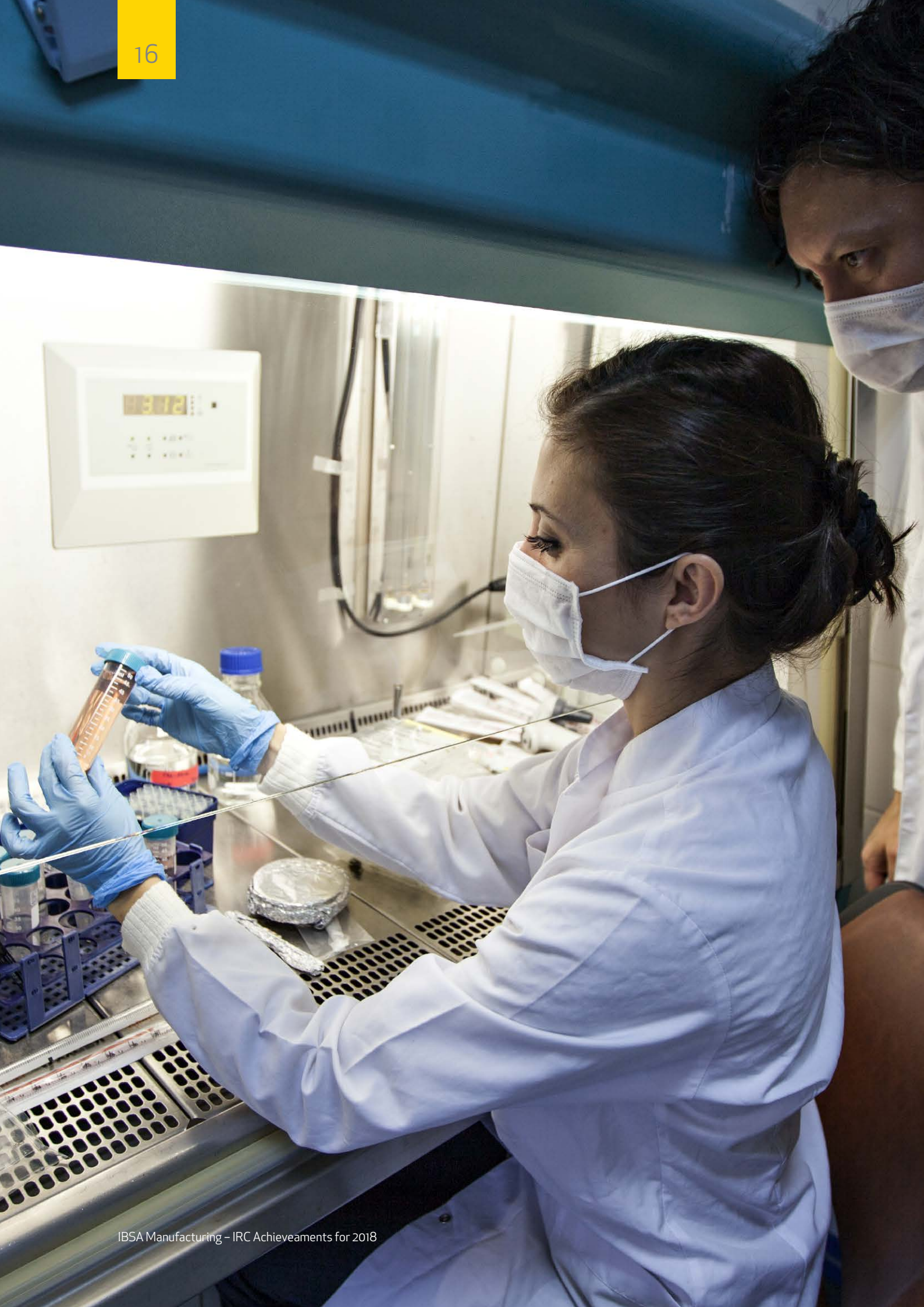
Projects/consultations in progress

The **Chemical, Hydrocarbons and Refining 2017 Project** will focus on the review of the Certificate III in Process Plant Operations, and associated units. A Technical Advisory Committee (TAC) was reconvened, comprising of nominated individuals whom have significant expertise and knowledge of the industry. The Case for Endorsement for this work will be submitted in late 2019.

Industry Skills Forecast priorities

The Chemicals, Hydrocarbons and Refining Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 was developed by the Process Manufacturing, Recreational Vehicle and Laboratory IRC with support from IBSA Manufacturing. The Industry Skills Forecast details the priorities for, and rationale to undertake, training package development work in the industry over the next four years.

The Industry Skills Forecast identified potential skill changes arising from changing government regulations, the impact of new technologies where these are being introduced, and for stronger business leadership skills. Future training package development work includes reviewing components to account for the coal seam gas sector and reviewing the diploma and advanced diploma to better match the qualifications to current job roles in the industry.



2. Laboratory Operations

Cases for Endorsement

Release 2 was uploaded on the national register in July 2018. This release responded to the need for **histotechnology skills** for diagnostic laboratories, addressed as part of the **Laboratory Operations 2017 Project**. It resulted in two new units of competency and one new skill set to address the specialist skill needs of workers in histotechnology. It also reviewed and developed the Certificate IV in Laboratory Techniques and the Diploma in Laboratory Technology and associated units.

Meeting ministerial training product reform priorities

The work has included the deletion of seven units of competency to reduce duplication and remove obsolete units in line with training product reform priorities.

Projects/consultations in progress

Work on the **Analysis of Biofuels Project** has identified that the new skills sets and units of competencies are best positioned within the MSM Manufacturing Training Package. See Manufacturing (including Recreational Vehicles) for more details.

Industry Skills Forecast priorities

Despite overall growth in employment in the Laboratory Operations sector, the number of VET graduates is in decline, with some employers preferring university graduates to VET graduates.

The cost of new capital equipment has led to brand specific training being carried out by equipment manufacturers rather than developing skills across a range of equipment.

The Laboratory Operations Industry Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 was developed by the IRC with support from IBSA Manufacturing. The priorities for 2018–19 include skill sets for specialised industry sectors such as accreditation compliance in the laboratory and to investigate the need for new unit(s) in Point of Care Testing.

3.Manufacturing (including Recreational Vehicles)

Cases for Endorsement

Release 4 was endorsed in December 2018. This release was the result of the **Manufacturing 2017 Project** work that had a strong industry involvement and used the ministerial priorities for training product reform to help guide the improvements. In particular, these improvements enabled units to be owned and used by multiple industry sectors and support the movement of individuals between related occupations.

Meeting ministerial training product reform priorities

The new Certificate III in Fenestration imports glass and glazing sector units from the Furnishing Training Package. Both the Furnishing and Process Manufacturing, Recreational Vehicles and Laboratory IRCs and the TAC worked cooperatively to develop units to meet the requirements of each sector. This minimised the creation of new training package components and reduced duplication across the national training system. As a result, greater occupational mobility of workers is allowed as qualifications have been designed to better support individuals moving within and between industries.

Projects/consultations in progress

For the **Analysis of Biofuels Project**, IBSA Manufacturing has undertaken extensive research and consultation with industry to determine any gaps in the MSL Laboratory Operations Training Package, for those working in the biofuels sector. This work has identified that the new skills sets and units of competencies are best positioned within the MSM Manufacturing Training Package.

The research found that:

- Many organisations are in the early stages of operation and employ a high proportion of tertiary qualified workers
- The skills and knowledge identified for laboratory technicians at a VET level were covered by existing units with gaps identified in the 'operator' role and the processing of biomass into biofuels and other biproducts.

Two skills sets, and four new units of competency have been developed and the anticipated date for completion is 2019.

Industry Skills Forecast priorities

The Manufacturing Industry Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 was developed by the IRC with support from IBSA Manufacturing. The Forecast details the priorities for, and rationale to undertake, training package development work in the industry over the next four years.

There are no items that have been identified as critical or proposed for inclusion as priorities for 2018–19. However, in response to current and emerging skills needs, the IRC has identified two priorities to be considered over the period 2020–2022. These are a review of all Recreational Vehicle qualifications to reflect requirements of the new Road Vehicle Standards Act and a review of MSM Manufacturing process manufacturing qualifications for currency and relevance.

4. Manufactured Minerals Products

Work has been completed to incorporate some PMC Manufactured Mineral Products Training Package units and add a qualification into the MSM Manufacturing Training Package.

Cases for Endorsement

The **Manufactured Minerals Products Project** undertook work to determine key skill requirements and update components to ensure they reflect current industry requirements, remove obsolete components, and review and repackage components. The new components were repackaged into the MSM Manufacturing Training Package. This resulted in 36 new units of competency and one new qualification being added to the MSM Manufacturing Training Package.

Meeting ministerial training product reform priorities

The outcome is in line with the training product reform priorities through the removal of obsolete and superfluous qualifications.

Industry Skills Forecast priorities

The manufactured mineral product industry has declining levels of employment, an ageing workforce and is dominated by micro and small businesses. Technological innovation and demand for new products is hampered by a lack of capital and significant overseas competition. Process automation is impacting employment levels in the cement and lime manufacturing sector. Future employment levels in all subsectors of the industry are expected to decline in the next five years.

Furthermore, as technology impacts on the products being developed and work being undertaken, by manufactured mineral product businesses, the VET sector will need to respond to generic and technical workplace skills to ensure that content in manufactured mineral products units meets the needs of industry.

5. Plastics, Rubber and Cablemaking

Projects/consultations in progress

The Process Manufacturing Recreational Vehicle and Laboratory IRC identified the need to review the entire PMB Plastics, Rubber and Cablemaking Training Package. Feedback suggests the current qualifications are too broad, without industry specific skills and contain redundant electives.

The **Skills for the Polymer Industry Project** involves training package development and review of Polymer Processing and Polymer Technology qualifications and units of competency.

The TAC gave a strong recommendation that PMB Plastics, Rubber and Cablemaking should be delivered holistically as workers are required to have a comprehensive understanding of the entire job role. Public consultation is scheduled for early 2019 and the project is due for completion in late 2019.

Industry Skills Forecast priorities

The Plastics, Rubber and Cablemaking industry requires new skills priorities, which include skills to manage and maximise the use of technology, while retaining knowledge of basic plastics. In addition, generic skills, including problem-solving and decision-making skills, are seen as critical in supporting businesses to switch their operations from higher volume manufacturing to smaller runs suitable for niche industries.

The industry is seeing a reduction in training undertaken by industry and lower levels of Science, Technology, Engineering and Mathematics (STEM) skills in people seeking work in the sector. This shift in the profile of applicants to the industry comes at a time when there is an increasing need for STEM skills in job roles.

The PMB Plastics, Rubber and Cablemaking Training Package is currently under redevelopment. As a consequence, the IRC did not submit a Proposed Schedule of Work as part of this Industry Skills Forecast.

Industry engagement highlights

As part of its industry engagement and case study series, IBSA Manufacturing visited the Astor Industries site in Sydney (see case study) and Nova Caravans' manufacturing facility in Melbourne (see case study in Sustainability section).

Numerous other industry site visits were undertaken to better understand industry requirements including Dolphin Products, Caps and Closures, Plastool, Aquatic Leisure Technologies and PPC Moulding.

Extensive stakeholder consultations across the wide range of industries and projects looked after by the IRC also took place throughout the year, including NSW Health Pathology, LabTech Training, Plastic and Rubber Technical Education Centre, the WA Plastic Rubber and Cablemaking Industry Advisory Group and Southern Oil Refining.

Case study: Astor Industries
Redesigning for the future

Astor Industries is a proud Australian family business, that shares a committed focus in developing the organisation through innovation and sound leadership. It is one of the major suppliers of plastic moulded branding to the automotive industry in Australia. To ensure continued success, Astor has significantly diversified and reskilled its workforce to position itself at the forefront of advanced process manufacturing development.

Challenges facing the organisation

Like many manufacturing organisations in Australia, Astor Industries needed to evolve or die. It was facing a double whammy with its major market, automotive manufacturers, ceasing production in Australia and competitor products being imported from lower cost producing countries like China.

At its peak in the early 2000s, Astor Industries was producing 48,000 parts per day and employed 180 people.

Astor Industries' solution

In 2015 the business was bought by Neil and Mariella Henderson, both former long term employees, and the new owners embarked on a cross-skilling exercise to develop flexibility across all departments of the organisation. Astor had many employees with over 20 years' experience in doing exactly the same job and they needed their workforce to be able to add value in other areas of the operations.

Diversification and training employees are two core aspects of the business' transformation and future strategy to improve its customer focus.

Astor Industries has significantly diversified its range of products and services. It now makes goods ranging from plastic car badges and branded beer taps to lapel pins and even recycled plastic spectacles. It sells to a broader range of customers, opening up new potential markets and revenue streams, and has greater flexibility to produce different items and short order runs.

From a workforce development perspective, significant importance is given to each employee's training needs. The strong emphasis on up and re-skilling has been met through a multi-faceted development approach. Given the cutting-edge nature of many processes, Astor Industries has had to develop in-house training programs for certain skill sets such as chemical processing and polymer technologies.

Its latest graduate apprentice, a 50 year-old, is already adding significant value to the capabilities of the business. They have just taken on a new apprentice and have linked with local high schools to access a potential pool of new apprentices and trainees.

In-house training is supplemented by formal qualifications through the local TAFE and there have been regular discussions regarding skills and qualifications to meet Astor Industries' requirements. All employees are also encouraged and supported to undertake some form of professional development.

Neil Henderson (left) with Pratik Puppal, Dresden Optics

IBSA Manufacturing's Mark Shaddock, inspects Astor's modular eyewear

Outcome

Astor Industries now profitably employs 40 people producing 10,000–15,000 parts per day and is looking to grow. Its progress is highlighted by the fact General Motors has recently presented Astor Industries with its Global Excellence Award for the third year running.

Neil Henderson, Managing Director Astor Industries, cites the flexibility of the workforce and the production facilities as key to the future success of the company.

> " We see many of the processes we have developed as the future for the manufacturing industry here in Australia. We are hopeful that new training courses will also be developed that are even more relevant to today's job needs so we can continue to develop our employees.
>
> Diversification has led us to some truly groundbreaking initiatives that we would never have even dreamed of when the company was solely focused on supplying the automotive industry. A great example is our partnership with Dresden Optics. This has resulted in a new, low-cost modular eyewear system that uses recycled and recyclable materials to produce stylish eyewear with interchangeable parts. Having a flexible workforce and processes is opening up big opportunities for us, especially in the healthcare sector."

Astor Industries backs up its commitment to training by offering scholarships and traineeships for school leavers and does what it can to support the broader development of the industry.

Astor Industries is seen as one of the companies at the forefront of the 'new' Australian manufacturing landscape. This is reinforced by the fact it is one of the firms the Process Manufacturing, Recreational Vehicle and Laboratory Industry Reference Committee is keen to engage with as it develops new training components for the process manufacturing industry.

Sustainability Industry Reference Committee

2018 Committee members

Peter Nemtsas,
Myoora Transformations – CHAIR

Michael Grogan,
Advanced Manufacturing Growth Centre – DEPUTY CHAIR

Bradley Anderson,
Office of Environment & Heritage, NSW Government

Patricia Caswell,
Tricia Caswell and Associates

Meriel Chamberlin,
Apparel and Textile Industry Group

Ian Curry,
Australian Manufacturing Workers' Union

Daniel Giles,
The Character Group

Mark Goodsell,
Australian Industry Group

Luke McConchie,
Leighton O'Brien

Karla Paeglis,
Energy Efficiency Council

Andrew Petersen,
Business Council for Sustainable Development Australia

Cases for Endorsement

Release 2 of the MSS Sustainability Training Package was endorsed in October 2018. Through the **Sustainability 2017 Project**, this release included examining and addressing the specialist skill needs of workers in the **carbon auditing** sector and reviewed the units and qualifications. The result was one new unit of competency and one new skill set, as well as updating 66 units and deleting two units to reduce duplication and remove obsolete components.

Carbon auditing is a growing business sector, driven by increased awareness of environmental responsibilities in organisations and government policies. A growing number of consultants are offering carbon auditing services, however, without national standards, businesses cannot be assured of the consistent quality of the services.

Meeting ministerial training product reform priorities

The work followed the ministerial priorities for training reforms in a number of ways, in addition to reducing duplication and removing obsolete units. A Companion Volume – Range of Conditions was created to ensure that information about the context of training and assessment in the original units is available to further convey industry expectations. The new MSS Sustainability unit and skill set developed applies across multiple industry sectors and is relevant in a large range of professional settings.

Projects/consultations in progress

The Sustainability IRC identified a need to further extend skills for Sustainability job roles to consider the increasing importance and focus by organisations to meet Corporate Social Responsibility (CSR) expectations, including adherence to national and international standards.

The **Corporate Social Responsibility Project** work involves a review of 33 existing associated units of competency, the development of a new unit of competency along with two new skill sets.

Consultation rounds have been completed and the Case for Endorsement is expected to be submitted in 2019.

Industry Skills Forecast priorities

The Sustainability Industry Skills Forecast and Proposed Schedule of Work for 2018–19 to 2021–22 was developed by the Sustainability IRC with support from IBSA Manufacturing. The Forecast details the priorities for, and rationale to undertake, training package development work in the industry over the next four years.

There are three areas of focus within the

- Sustainability Training Package:
- Sustainable Operations
- Competitive Systems and Practices
- Environmental Monitoring and Technology.

The item identified as a critical priority for 2018–19 was the redevelopment of training components to address skills needs for Energy Management (See Cases for Change section).

Other items proposed as priorities include Sustainability Practices, Emerging Technological Changes, Competitive Systems and Practices, and Environmental Monitoring and Technology.

Cases for Change

The **Energy Management** Case for Change involves the development of a skill set and updating current training package components in the areas of energy management, including energy procurement, to ensure coverage of the skills and knowledge needed in the workplace.

Demand for courses being offered outside of the VET system, such as those run by the NSW Government Office of Environment & Heritage, demonstrates a growing interest in, and demand for, skills and strategies for managing energy costs in a way that requires little capital investment.

The training products to be developed and updated through this project will be relevant to a wide range of occupations with responsibilities for management or procurement of energy within any industry that is being impacted by rising energy costs. As the MSS Sustainability Training Package underpins a broad range of sectors, it is the ideal home for these products.

The Case for Change was submitted to the AISC in January 2019.

Industry engagement highlights

Sustainability IRC member, Andrew Petersen, CEO of Sustainable Business Australia, was invited to present at the 2018 High-level Segment of United Nations Economic and Social Council (ECOSOC) at the UN Headquarters in New York.

IBSA Manufacturing visited caravan manufacturer, Nova Caravans, to find out more about their successful implementation of Lean Methodologies (see case study).

A series of Sustainability Industry forums and consultations were held in Melbourne, Perth and Sydney during August.

Case study: Nova Caravans
Boosting output using Lean methodologies

Nova Caravans, one of Australia's leading caravan manufacturers, has seen significant productivity gains through the development of its workforce and the implementation of competitive systems and practices. Lean improvements introduced into the operation are expected to deliver a 40% increase in productivity. Nova Caravans is also the first company to be awarded Manufacturer of the Year by the Caravan Industry Association two years running.

Overview

Nova Caravans is an industry leader in style and innovation. It was founded in 2006 by Robert Cataldo, whose dream was to create a brand of luxury touring caravans, with European style, that were also resilient for the tough Australian environment.

At their production facility in Melbourne, Nova Caravans' 80 strong workforce produces around 10 caravans per week. The manufacture of caravans requires a diverse range of skills from cabinet making, furnishing, plumbing, electrical fit-out and metal fabrication.

The business has faced a number of challenges since it began operation including employee retention in a sector with many competitors and keeping up with technological changes. Currently, the biggest issues are sourcing materials and key components and managing the impact of social media.

As Robert described it,

> " If anyone had an issue with their caravan 10 years ago, they would discuss it around the campfire with a handful of people. Now, with social media, the campfire is huge and reaches thousands of people."

Implementing competitive systems and practices and enhancing skills

Robert Cataldo has a keen desire to grow his business and increase the skills of his workforce. Nova Caravans recently implemented a program using Lean methodologies to improve systems and processes. The program initially focused on the electrical fit out section of the caravan manufacturing process. It helped to develop more efficient processes and improve the health and safety of workers across the site. Examples of improvements include clearer component labelling and placement of materials and parts in trolleys or on pallets in the location where the work is undertaken. These improvements provide employees with easier access to the materials they need and has resulted in faster production times with a less cluttered and more organised site.

Nova Caravans has been selected as the first caravan manufacturer in Australia to implement a training program which considers the end-to-end caravan manufacturing process. The organisation was chosen by the Caravan Trades & Industries Association of Victoria to participate in the program managed by the Victorian Government. This training initiative is being carried out in partnership with Melbourne Polytechnic.

The arrangement provides Nova Caravans' employees with in-house training which is formally recognised, as well as the opportunity to complete additional training to achieve a Certificate III qualification. Other learners at Melbourne Polytechnic are also able to gain practical experience at the Nova Caravans production facility.

The benefits to the business include creating multi-skilled teams and a better working environment. Over 70% of employees have put their hands up to be involved in the training program to learn new skills and gain a qualification.

Training delivers increased productivity

Nova Caravans was recognised by industry peers as the Manufacturer of the Year two years in a row. This is the first time a company has achieved this award back-to-back. They have also received recognition for other awards and were a finalist for Hume City Council's Education and Workplace Learning award in 2017.

Since they were established, Nova Caravans has stressed the importance of workplace training to its employees. The successful implementation of the Lean program in the electrical fit-out section enabled employees to complete their work more efficiently and increase output. The program is being extended across the production line to help deliver further increases in productivity.

Having a multi-skilled workforce, with employees able to work across the manufacturing process, allows the organisation to innovate and adapt readily to any process change. The sector has seen a shift toward assembly of prefabricated components rather than building each component on site.

Nova Caravans anticipates both the Lean program and skills recognition initiative will assist in increasing the number of standard model caravans manufactured by 40% per week.

Commenting on the importance placed on employee training, Robert said,

> " I prefer to train my workforce rather than contract skilled labourers. Not only will I have multi-skilled employees happy to come to work, but we will build more caravans, more cost effectively while delivering a better quality product."

Textiles, Clothing and Footwear Industry Reference Committee

2018 Committee members

Leon Drury,
Manufacturing Skills Australia NSW ITAB – CHAIR

Kerryn Wollington,
LDCT Laundry Dry Cleaning Training – DEPUTY CHAIR

Alison Bradshaw,
Indigo Leaf

Meriel Chamberlin,
Apparel and Textile Industry Group

John Condilis,
Nobody Denim

Ana Drougas,
Specialised Textiles Association

Kay Gerard,
Food, Fibre & Timber Industries Training Council

Millie Gilbert,
Millie Gilbert Design Services

Hilde Heim,
Australian Institute of Creative Design

Jenny Kruschel,
Textiles, Clothing and Footwear Union of Australia

Projects/consultations in progress

The Textiles, Clothing and Footwear IRC identified an industry need to develop further key skills in buying to ensure graduates are 'job ready'. The **Buying Skills in Fashion and Textiles Project** involves a review of the Diploma and Advanced Diploma in Applied Fashion and Merchandising, with particular focus on changes required to meet industry needs, including the development of buying related units and a review of key foundation skills, performance and knowledge evidence required for a graduate in a buying capacity.

Public consultations have been carried out and the Case for Endorsement is expected to be submitted in 2019.

The **Medical Grade Footwear and Wool Processing Project** involves the redevelopment, relocation and deletion of Medical Grade Footwear specific units and qualifications as well as the development and redevelopment of Wool Processing units.

This project work will also transition, replace or delete outstanding components from the existing LMT07 Textiles, Clothing and Footwear Training Package to the MST Textiles, Clothing and Footwear Training Package.

Public consultations have taken place and it is anticipated the project will be completed in 2019.

The **Laundry and Dry Cleaning Project** reflects the development of the sector, underpinned by the growth in nursing homes, retirement villages, and tourism accommodation. The review is intended to address risks of cross-infection and employer concerns with the training and skills levels of students post accredited qualification. By making these skill sets available to upskill existing skilled workers, it is also expected to provide a pathway to address the shortage of skilled workers.

This project involves the review and redevelopment of four Laundry Operations and Dry Cleaning Operations qualifications and associated units of competency, the development of new skills sets and new units of competency.

Public consultations are expected to begin in March 2019 with project completion due for the end of 2019.

Industry Skills Forecast priorities

The Industry Skills Forecast and Proposed Schedule of Work 2018–19 to 2021–22 was developed by the IRC, with support from IBSA Manufacturing, based on identified industry trends. The Schedule lists the priorities over the next four years, and the rationale and proposed timeframes for these activities.

The item identified as a critical priority for 2018–19 was the redevelopment of Laundry and Dry Cleaning qualifications. A Case for Change for this priority was included as part of the 2018 Industry Skills Forecast (See projects/consultations section).

Clothing and textile production skill sets which provide specialised skill development in areas of demand and a means of recognising the skills of existing workers to improve retention and job portability, are seen as a priority.

Additionally, in response to current and emerging skills needs, the IRC has identified new technologies and materials, fashion design for production settings along with Science, Technology, Engineering and Mathematics (STEM) skills for training package development.

Industry engagement highlights

Boutique textiles firm, Frankie and Swiss, provided an in-depth tour of their operations, (see case study). IBSA Manufacturing attended the Melbourne Fashion Week Forum and the Australian Fashion Council's event to launch 'The State of Fashion 2018' research report.

In Western Australia, IBSA Manufacturing joined the WA Minister for Education and Training to celebrate the return of key textiles and furnishing trades to the State. A series of Textile, Clothing and Footwear Industry consultations were held in most States and Territories.

Case study: Frankie and Swiss
The difference the right set of skills makes

Boutique textile company, Frankie and Swiss, had struggled to find the right person to run 'Florence', their digital textile print machine. Eventually, they found a perfect match by taking on an Apprentice who already had a degree in Textile Technology and understood the demands of working with natural fibres.

Frankie and Swiss had a problem

Frankie and Swiss was founded in 2011. They are a boutique textile company that custom print designs onto natural fibre fabrics with natural inks. Managing Director, Jacqui Redman, was not sure where to find their next person, or even what specific skills they needed, when their digital fabrics print machine operator left the organisation. She was hesitant to go to a standard online recruitment portal, as they knew the position required a very specialised skill set.

In addition to small run clothing production, Frankie and Swiss manufacture homeware products including cushions, wall hangings and tea towels. Their customers are typically interior designers, fashion designers or architects looking for bespoke fabrics and homewares. All manufacturing processes are handled in house, including any finishing work required.

With this vacancy, Frankie and Swiss opted to take the apprenticeship path, hoping to find someone with a good knowledge of textiles and natural fibres, and willing to be trained to operate a digital textile press. The ideal person needed to have the right attitude and the customer service skills critical for the company's 'hands-on' approach with their clients, in addition to being a machine operator and a designer.

David Galbraith, IBSA Manufacturing, with Jacqui and Mareesha from Frankie and Swiss

Solution

After interviewing "some interesting characters", Jacqui came across Mareesha Van der Ploeg. Mareesha had completed a Bachelor of Applied Science in Textile Technology, and undertaken a number of different internships, including some with exposure to digital printing operations.

Mareesha was taken on as a trade Apprentice in 2014 and found her place in the team quickly. She was already aware of the Frankie and Swiss product range and enjoyed the opportunity to have a hands-on role in an organisation with a strong sustainability focus.Natural fibre is notoriously difficult to print on with consistency so Mareersha's understanding of how the fibres would respond to the print process was invaluable to the organisation.

Frankie and Swiss' commitment to skilling people in custom textile development processes has extended to the establishment of an internship program for textile design students. Schools partnerships have also been developed where VET in Schools groups visit the studio for a tour, learn about the range of natural fibres which are available, and work with the Frankie and Swiss team to produce their own samples.

Another successful skilling sideline has seen the development of a Design School for people looking to further their knowledge and skills in textile printing. The majority of Design School attendees are undertaking some form of vocational qualification, such as fashion or textile design, and, through their association with Frankie and Swiss, can produce items required for their assessment portfolios.

Outcome

Mareesha's ability to bring her textiles knowledge and understanding to the print production side of things has helped the business improve their range and product quality. She has recently moved to a production management role, with responsibility for customer liaison and all the finishing processes once the fabrics have been printed.

With Mareesha on board, last year was Frankie and Swiss' most successful ever and the future is looking very bright. When IBSA Manufacturing caught up with her, Mareesha was discussing the opportunities created by working with a new 'silk lycra' fabric. This fabric will further assist the organisation to expand into the boutique garment and sample production space.

Embracing digital technology has also helped the business develop and thrive. Frankie and Swiss are seeing growth in the Australian textile design industry. Having more competitors is actually helping the business grow as it increases their awareness of what can now be custom produced. Frankie and Swiss play a critical role in the development of emerging fashion designers and niche clothing production firms. They provide support, advice and an economical means of production to get their designs to market. Digital printing allows these designers to minimise their outlay with short runs, reduce their lead times to market, while allowing them to be responsive to changing market needs.

The next evolution will be a new website that will enable clients to upload their own designs for direct product printing and manufacture using natural fibres, on products as diverse as deck chair covers to scarves. They are also looking to provide this web capability to third parties, such as photographers, to enable them to on-sell bespoke fabric prints of client photos for example.

Developing cross-disciplinary skills in textiles and printing is proving profitable for Frankie and Swiss.

IBSA Manufacturing Cross-Sector and Stakeholder Engagement Activities

Industry Reference Committee and Technical Advisory Committee engagement

In total, 25 IRC meetings were held both in person and via teleconference in 2018, as well as a joint strategy session with all IBSA Manufacturing IRC Chairs.

86 people with relevant industry experience and knowledge of training package components joined our nine TACs, taking part in a total of 30 meetings in 2018.

Dedicated IRC newsletters were delivered during the year to summarise key information for IRC members.

State Training Authority engagement

A series of meetings were held with each State Training Authority (STA) to discuss the work of our IRCs and proposed changes to training packages.

IBSA Manufacturing produced a newsletter specifically to update STAs with relevant information.

Stakeholder engagement activity

Industry newsletters to stakeholders

Monthly newsletters focusing on relevant industry stories were sent to over 9,000 subscribers each month. Over 50 subscribers on average were added every month. The IBSA website has recorded over 1,000 new subscribers since it became a Skills Service Organisation.

Website

The website underwent 2 major refreshes in 2018 to better showcase the work of the IRCs and facilitate increased stakeholder engagement with training package projects.

100 news items were posted during the year, with the website averaging over 10,000 hits per month.

Social media

The main social media channels used by IBSA Manufacturing are:

LinkedIn
Achieved over 55,000 impressions in 2018.
www.linkedin.com/company/innovation-business-skills-australia

Twitter
Average of 14 tweets posted per month, with nearly 86,000 impressions achieved in 2018.
@IBSATweets

Events

We had a presence at an extensive range of industry events around the country. These included specific training package related activity and STA meetings along with promoting stakeholder engagement in manufacturing and broader industry sectors.

IRC specific activities are featured throughout this report. Highlights of other industry events in which IBSA Manufacturing participated include:

- Training Providers Forum (Perth)
- 2018 VET CEO Conference (Melbourne)
- WorldSkills Australian National Championships (Sydney)
- ACPET Conference (Canberra)
- VELG National Conference (Sydney)
- TAFE Directors/World Federation of Colleges and Polytechnics Congress (Melbourne)
- Australian Training Awards (Sydney).

International Engagement

Throughout 2018, we hosted a number of international delegations. This included showcasing the Australian VET system to representatives from Chile, Peru and Pakistan at the Melbourne Cricket Ground.

Industry publications

IBSA Manufacturing produced its Supporting Future-Focused, Fit-for-Purpose Training Product report to highlight the IRCs' initiatives to meet ministerial priorities for training package reform.

The Preparing for Industry 4.0 – will digital skills be enough? Research report was published as part of the Digital Skills Cross Sector Project.

Industry 4.0 – Unpacking the Skills Challenges conference

The highlight of the year for IBSA Manufacturing was hosting the Industry 4.0 – Unpacking the skills challenges conference in July. We welcomed our keynote speaker, Dr Mariagrazia Squicciarini from the Organisation for Economic Co-operation and Development.

Members of all the manufacturing Industry Reference Committees were part of over 100 delegates from manufacturing and related sectors, Federal and State government representatives, leading education providers and industry leaders, who attended the event. It explored the skills challenges posed by Industry 4.0 with the aim to assist employers in the manufacturing sector, as well as employer peak bodies and unions, to understand more about the potential of Industry 4.0.

The conference was held in Melbourne and livestreamed with 7,500 people reached through the conference's social media activity.

www.ibsa.org.au
manufacturing@ibsa.org.au

Level 11, 176 Wellington Parade
East Melbourne, Victoria, 3002

Call (03) 9815 7099